

I/WE CLAIM:

1. A wheelchair that permits a user to rock while seated therein, the wheelchair comprising:

a frame structure;

a plurality of wheels rotatably mounted to the frame structure;

a seat assembly having a seat member and a back support member;

a rocking assembly disposed between the seat assembly and the frame structure, including bias means for normally maintaining the seat member in a desired alignment when the wheelchair is unoccupied, and permitting the seat assembly to yieldably rock back and forth about a substantially horizontal axis with respect to the frame, and

a rocking motion controlling system including a first rocking motion setting device for adjustably setting a selected maximum rocking motion according to a user's preference.
2. A wheelchair as claimed in claim 1 wherein the rocking motion controlling system comprises a second rocking motion setting device for ensuring that the selected maximum rocking motion is not greater than a predetermined level.
3. A wheelchair as claimed in claim 1 wherein the rocking motion controlling system comprises rock/tilt locking mechanisms for selectively locking the seat assembly in the normally unoccupied position or in a

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selected one of a plurality of predetermined tilt positions.

4. A wheelchair as claimed in claim 3 wherein the first rocking motion setting device is incorporated with the rock/tilt locking mechanisms.
5. A wheelchair as claimed in claim 3 wherein the rock/tilt locking mechanisms are located in a position not accessible by the user when seated in the wheelchair and are controlled by a controller attached to the wheelchair in a preferred location.
6. A wheelchair as claimed in claim 5 wherein the rock/tilt locking mechanisms comprise:
 - an elongated sliding member including a plurality of openings therethrough in a spaced-apart relationship, the sliding member being pivotally connected at an upper end to the seat assembly;
 - a body member pivotally connected to the frame structure for guiding the sliding member in a sliding motion relative thereto during rocking motion of the seat assembly; and
 - a pin operatively attached to the body member and operable between a first position in which the pin is inserted into a selected one of the openings in the sliding member to lock the seat assembly, and a second position in which the pin is positioned away from the sliding member to permit rocking motion of the seat assembly.

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7. A wheelchair as claimed in claim 6 wherein the first rocking motion setting device comprises a stop member adjustably secured to the sliding member to restrict the sliding motion thereof within a selected range.
8. A wheelchair as claimed in claim 6 wherein the rock/tilt locking mechanisms comprise a cable operatively connected at one end thereof to the pin, and operatively connected at the other end to the controller, for controlling the pin between the first and second positions thereof.
9. A wheelchair as claimed in claim 8 wherein the controller comprises:
 - a bracket attached to the seat assembly behind the back support member;
 - a handle pivotally connected to the bracket and secured with the cable, such that a pivoting motion of the handle tensions the cable to move the pin from the first position to the second position; and
 - a lock member selectively locking the handle in position when the cable is tensioned.
10. A wheelchair as claimed in claim 9 wherein the pin of the rock/tilt locking mechanisms is normally biased to the first position thereof and the lock member is normally biased in an unlocked position in which the handle is able to pivot.
11. A wheelchair as claimed in claim 1 wherein the bias means of the rocking assembly comprises a pair of

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leaf springs in a spaced-apart relationship and defining a substantially vertical plane transverse to the seat assembly, the leaf springs interconnecting the seat assembly and the frame structure.

12. A wheelchair as claimed in claim 1 further comprising a pair of brakes mounted to the frame structure and adapted to brake at least two of the wheels.
13. A wheelchair as claimed in claim 1 further comprising a pair of footrests removably mounted on the frame structure.
14. A wheelchair as claimed in claim 1 further comprising a pair of footrests removably mounted to the seat assembly.
15. A wheelchair as claimed in claim 1 wherein the frame structure comprises an anti-tip device for preventing the wheelchair from falling backwards during the rocking motion.
16. A wheelchair as claimed in claim 15 wherein the anti-tip device is adjustable to ensure an operative position in which the anti-tip device makes contact with a ground surface.
17. A wheelchair as claimed in claim 15 wherein the anti-tip device is adapted to be disabled when the wheelchair is not in a rocking motion.
18. A wheelchair that permits a user to rock while seated therein, the wheelchair comprising:

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- a frame structure;
- a plurality of wheels rotatably mounted to the frame structure;
- a seat assembly having a seat member and a back support member;
- a rocking assembly disposed between the seat assembly and the frame structure, including a bias means for normally maintaining the seat member in a desired alignment when the wheelchair is unoccupied, and permitting the seat assembly to yieldably rock back and forth about a substantially horizontal axis with respect to the frame; and
- a rocking motion controlling system including rock/tilt locking mechanisms for selectively locking the seat assembly in the normally unoccupied position or in a selected one of a plurality of predetermined tilt positions, the rock/tilt locking mechanisms including a pair of locking elements operatively mounted to the respective seat assembly and the frame structure, one of the locking elements being receivable in a selected one of a plurality of spaces defined in the other of the locking elements.

19. A wheelchair as claimed in claim 18 wherein the rock/tilt mechanisms comprise a spring which biases the locking elements into engagement, the locking elements being disengagable by actuating a controller against the spring force.

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20. A wheelchair as claimed in claim 18 wherein the rocking motion controlling system comprises a first rocking motion setting device for adjustably setting a selected maximum rocking motion according to a user's preference.
21. A wheelchair as claimed in claim 20 wherein the rocking motion controlling system comprises a second rocking motion setting device for ensuring that the selected maximum rocking motion is not greater than a predetermined level.
22. A wheelchair as claimed in claim 19 comprising a pair of footrests selectively mounted to the wheelchair in a first position in which the footrests are adapted to rock together with the seat assembly, and a second position in which the footrests are stationary with respect to the seat assembly during the rocking motion.
23. A wheelchair as claimed in claim 22 wherein each of the footrests is adjustable in the respective first and second attached position.
24. A wheelchair as claimed in claim 20 wherein the first rocking motion setting device is incorporated with the rock/tilt locking mechanisms.
25. A wheelchair as claimed in claim 19 wherein the controller is attached to the wheelchair in a selected position for controlling the rock/tilt locking mechanisms.

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26. A wheelchair as claimed in claim 18 wherein the frame structure comprises an anti-tip device for preventing the wheelchair from falling backwards during a rocking motion.
27. A wheelchair that permits a user to rock while seated therein and is adjustable for users, the wheelchair comprising:
- a frame formed of spaced-apart rigid side members connected together by cross braces;
 - a pair of main wheels rotatably mounted to the frame and adapted to be driving wheels for the wheelchair;
 - at least one caster wheel connected to the frame and being pivotal about a substantially vertical axis;
 - a seat assembly having a seat member, a back support member and side support members attached to the seat member at opposed sides thereof;
 - a rocking assembly disposed between the seat assembly and the frame structure, including bias means for normally maintaining the seat member in a desired alignment when the wheelchair is unoccupied, and permitting the seat assembly to yieldably rock back and forth about a substantially horizontal axis with respect to the frame, and
- the frame including means for selectively attaching the main wheels in one of a plurality of predetermined positions in order to adjust the height of the wheelchair.

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28. A wheelchair as claimed in claim 27 comprising means for adjusting a selected maximum rocking motion of the seat assembly within a predetermined range.
29. A wheelchair as claimed in claim 27 wherein the at least one caster wheel is adjustable in height relative to the frame.
30. A wheelchair as claimed in claim 27 comprising a foot resting device selectively mounted to the wheelchair in a first position in which the foot resting device is adapted to rock together with the seat assembly, and a second position in which the foot resting device is stationary with respect to the seat assembly during a rocking motion.
31. A wheelchair as claimed in claim 30 wherein the foot resting device comprises a pair of footrests, each being adjustable in height relative to the seat assembly in the first position and relative to the frame in the second position.
32. A wheelchair as claimed in claim 31 wherein the footrests are each adjustable in a substantially horizontal direction relative to the seat assembly when the footrests are in the first position and the wheelchair is in the normal unoccupied position.
33. A wheelchair as claimed in claim 31 wherein the footrests are each pivotal about a substantially vertical axis in the first position when the wheelchair is in the normally unoccupied position, and in the second position.

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34. A wheelchair as claimed in claim 28 comprising rock/tilt locking mechanisms for selectively locking the seat assembly in the normally unoccupied position or in a selected one of a plurality of predetermined tilt positions.
35. A wheelchair as claimed in claim 34 wherein the rock/tilt locking mechanisms is incorporated with means for adjusting a selected maximum rocking motion of the seat assembly.
36. A wheelchair as claimed in claim 27 comprising an adjustable anti-tip device attached to the frame of the wheelchair.